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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/399,696	09/21/1999	KEHSING J. CHOU	ST9-99-093	2558

7590 02/15/2005

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2100 PENNSYLVANIA AVENUE NW  
WASHINGTON, DC 20037-3213

EXAMINER
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PHAM, HUNG Q

ART UNIT	PAPER NUMBER
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2162

DATE MAILED: 02/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/399,696

Applicant(s)

CHOU ET AL.

Examiner

HUNG Q PHAM

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

Applicants filed an Appeal Brief on 06/27/2003. The conferees agreed with the applicants that the cited references do not teach or suggest the elements of independent claims 1, 7 and 13, which are directed to a method, apparatus and a program for accessing heterogeneous datastores, especially the claimed feature: *processing the request based on a load of the server*. Therefore, the finality of the office action 01/27/2003 has been withdrawn. The Office regrets and apologizes for any inconvenience.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-4, 7-10 and 13-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Ito et al. [USP 5,721,904].**

Regarding claims 1, 7 and 13, Ito teaches a system, apparatus, and method for searching for data in one or more heterogeneous data sources within a computer system (Col. 1, Lines 10-14).

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- As illustrated at FIG. 1, *a request for accessing data at a federated data source* includes Database Driver A and Database Driver B in the form of SQL\_RPC (Col. 8, Lines 15-26).

- Referring back to FIG. 1, Access Management Component 112v as *server connected to* Database Driver A and Database Driver B as *one or more heterogeneous data stores*. Upon issuance of SQL\_RPC, the name server information processing system is inquired for connection with Access Management Component 112v (Col. 9, Lines 26-32). The Name Server Information Processing System 150 keep track the status of each component 112v or server, where the server in operation is labeled as RUN, the server in stationary state as STOP, and the server in fault as FAULT. The name server information processing system 150 replies with the port number and the network address of the server component if the value held in the status storage region is RUN (Col. 10, Lines 15-36). As seen, Access Management Component 112v as *server is selected to process the request based on whether the server can satisfy the request for data* using the status of each component 112v. Ito further discloses the technique of *selecting* Access Management Component 112v as *server based on a load* condition of each Access Management Component 112v at Col. 15, Lines 18-28 and 54-66.

Regarding claims 2, 8 and 14, Ito teaches all of the claimed subject matter as discussed above with respect to claims 1, 7 and 13, Ito further discloses the claimed *forwarding the request to the selected server* (Col. 8, Lines 16-26, and Col. 10, Lines 38-44).

Regarding claims 3, 9 and 15, Ito teaches all of the claimed subject matter as discussed above with respect to claims 2, 8 and 14, Ito further discloses the claimed *forwarding additional requests for similar data to the selected server* (Col. 9, Lines 26-45).

Regarding claim 4, 10 and 16, Ito teaches all of the claimed subject matter as discussed above with respect to claims 1, 7 and 13, Ito further discloses *the server is within a server hierarchy* (Col. 10, Lines 15-36).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims 5, 11 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. [5,721,904] in view of Guedalia et al. [USP 6,535,878 B1].**

Regarding claims 5, 11 and 17, Ito teaches all of the claimed subject matter as discussed above with respect to claims 4, 10 and 16, but does not explicitly teach the claimed *upon receiving a request to add another server, connecting the server to an existing server in the server hierarchy based on a number of connections of the existing server*. However, in order to prevent processor bottlenecks, Guedalia, Col. 5, Lines 3-16, discloses the technique of adding new server to an existing server based on number of connections. It would have been obvious for one of ordinary skill in the art at the time the invention was made to add a new server upon receiving a request in order to prevent the bottleneck of connections.

**Claims 6, 12 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. [5,721,904] in view of Takahashi et al. [USP 6,259,705 B1].**

Regarding claims 6, 12 and 18, Ito teaches all of the claimed subject matter as discussed above with respect to claims 4, 10 and 16, but does not explicitly teach the claimed *upon receiving a request to deleted an existing server in the hierarchy, deleting that server*. However, in the event that a server has gone down, Takahashi, Col. 2, Lines 1-10,

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discloses the technique of making a change to the server group configuration to delete the server that went down. It would have been obvious for one of ordinary skill in the art at the time the invention was made to delete a server in order to connect to a server that satisfies a predetermined load condition.

**Claims 19, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. [5,721,904] in view of Francis et al. [USP 6,772,131 B1].**

Regarding claims 19, 20 and 21, Ito teaches all of the claimed subject matter as discussed above with respect to claim 1, 7 and 13, but does not explicitly teach the claimed *load of the server is based on at least the ratio of a current load of the server and a maximum load of the server*. However, Francis discloses a load balancing based on *the ratio of a current load of the server and a maximum load of the server* (Francis, Col. 6, Lines 4-11). It would have been obvious for one of ordinary skill in the art at the time the invention was made to use the ratio of current load and maximum load to define the load condition of a server in order to distribute the request to an available server.

**Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. [5,721,904] in view of Arnold et al. [USP 6,446,070 B1].**

Regarding claims 22, 23 and 24, Ito teaches all of the claimed subject matter as discussed above with respect to claims 1, 7 and 13, but does not explicitly teach the

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claimed *server is a Remote Method Invocation server*. However, RMI server for a remote compute call to process a task on a remote server computer is disclosed by Arnold at FIG. 3, Col. 6, Lines 4-22. It would have been obvious for one of ordinary skill in the art at the time the invention was made to use Remote Method Invocation to process a Remote Procedure Call in order to have a well translation of objects into distributed system.



**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG Q PHAM whose telephone number is 571-272-4040. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN E BREENE can be reached on 571-272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

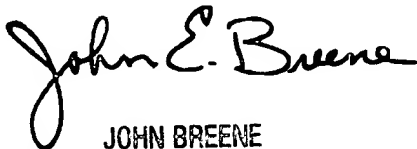
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

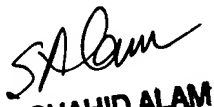
Examiner Hung Pham  
February 2, 2005

Conferees

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